

ABSTRACT OF THE DISCLOSURE**TWO-DIMENSIONAL SCHEDULING SCHEME FOR A  
BROADBAND WIRELESS ACCESS SYSTEM**Inventors:

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10 A two dimensional scheduler integrates the allocation of both the time domain and the channel domain for upstream communication in a broadband wireless access system. This allows for the optimization of system resource usage and allows for dynamic switching between a number of different upstream

15 channels by a modem. Modems are calibrated via a calibration message constructed at the hub by measuring some parameters of communication bursts between the modem to the hub. The modems rotate in using the available upstream channels so that each available channel is fully calibrated using actual communication

20 bursts, keeping the parameters for each channel ready for use when assigned for communicating on any of the available channels.